

AMENDMENTS TO THE CLAIMS:

Please amend claims 10, 11, 13, 20 and 25 as follows. Cancel claims 12, 14 and 15.
Add claims 29-36. This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS:

- 1-7. (Canceled)
8. (Previously Presented) An isolated nucleic acid encoding a polypeptide comprising an amino acid sequence at least 70% identical to SEQ ID NO:1, wherein the polypeptide is a transporter of an organic cation.
9. (Previously Presented) An isolated nucleic acid encoding a polypeptide comprising the sequence of SEQ ID NO:1.
10. (Currently Amended) An isolated nucleic acid encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:1, with one ^{[[up]]} to 30 conservative amino acid substitutions, wherein the polypeptide is a transporter of an organic cation.
11. (Currently Amended) An isolated nucleic acid ~~comprising a strand~~ that hybridizes under stringent conditions to a ~~single-stranded~~ probe, wherein:
the sequence of the probe ~~which~~ consists of ~~SEQ ID NO:2~~ or the complement of SEQ ID NO:2;
the stringent conditions comprise hybridization at 68 °C followed by washing in 2 X SSC/0.1% SDS for 20 minutes at room temperature and twice in 0.1 X SSC/0.1% SDS for 20 minutes at 50 °C; and
the isolated nucleic acid encodes a polypeptide that is a transporter of an organic cation.
12. (Canceled)
13. (Currently Amended) The nucleic acid of claim ~~12~~ 11, wherein the amino acid sequence of the polypeptide comprises SEQ ID NO:1.
14. (Canceled)
15. (Canceled)
16. (Original) A vector comprising the nucleic acid of claim 8.
17. (Original) A vector comprising the nucleic acid of claim 9.
18. (Original) A vector comprising the nucleic acid of claim 10.
19. (Original) A vector comprising the nucleic acid of claim 11.

20. (Currently Amended) A vector comprising the nucleic acid of claim ~~12~~ 13.
21. (Original) A cultured host cell comprising the nucleic acid of claim 8.
22. (Original) A cultured host cell comprising the nucleic acid of claim 9.
23. (Original) A cultured host cell comprising the nucleic acid of claim 10.
24. (Original) A cultured host cell comprising the nucleic acid of claim 11.
25. (Currently Amended) A cultured host cell comprising the nucleic acid of claim ~~12~~ 13.
26. (Withdrawn) An antibody that specifically binds to the polypeptide of claim 1.
27. (Original) A method of producing a polypeptide, the method comprising isolating the polypeptide from the cultured host cell of claim 21.
28. (Canceled)
29. (New) The nucleic acid of claim 8, wherein the amino acid sequence of the encoded polypeptide is at least 80% identical to SEQ ID NO:1.
30. (New) The nucleic acid of claim 8, wherein the amino acid sequence of the encoded polypeptide is at least 90% identical to SEQ ID NO:1.
31. (New) The nucleic acid of claim 8, wherein the amino acid sequence of the encoded polypeptide is 76% identical to SEQ ID NO:1.
32. (New) The nucleic acid of claim 10, wherein the sequence of the encoded polypeptide comprises the amino acid sequence of SEQ ID NO:1, with up to 10 conservative amino acid substitutions.
33. (New) A method of screening compounds for the ability to be transported by an organic cation transporter, comprising:
 - (a) introducing the isolated nucleic acid of claim 8 into a cell;
 - (b) expressing the polypeptide in the cell;
 - (c) exposing the cell to a compound; and
 - (d) determining the presence of the compound in the cell as an indication of the ability of the compound to be transported by the polypeptide into the cell.
34. (New) The method of claim 36, wherein the compound is a drug.
35. (New) The method of claim 37, wherein the compound is a carcinostatic agent.
36. (New) An isolated nucleic acid encoding a polypeptide consisting of the sequence of SEQ ID NO:1.